

LV OP 3-2**Reclassification of microvascular invasion in hepatocellular carcinoma according to its anatomical location****Incheon KANG**, Gi Hong CHOI**Division of HBP Surgery, Department of Surgery, Yonsei University College of Medicine, Korea*

Introduction : The most important factor for TNM stage in hepatocellular carcinoma (HCC) is microvascular invasion (MVI), which includes all vascular invasions detected in the microscopic examination. In this study, we classified microvascular invasion into microvessel invasion (MI) and microscopic portal vein invasion (MPVI) and evaluated their prognosis after curative resection of HCC

Methods : From January 2009 to December 2015, 514 patients who underwent surgical resection without any preoperative treatments or gross vascular invasion were included. Among them, 241 patients (46.9%) were found to have MVI in the pathologic examination. The patients with MVI were divided into three groups: original MVI group (n=241), MI only group (n=195) and MPVI group (n= 46). Clinicopathologic features were compared between MI only group and MPVI group and prognosis after resection was analyzed among the three groups.

Results : MPVI group showed larger tumor size (4.2 vs 3.8, $p=0.001$) and higher level of tumor markers (AFP, 3238 vs 2896, $p=0.017$ and PIVKA; 1602 vs 926, $p=0.001$) than MI only group. In survival analysis, 5-year DFS rate after resection were 47.1% (MI only group), 43.6% (original MVI group), and 27.8% (MPVI group) respectively ($p=0.000$). And 5 year-OS rate after resection of MI only group, original MVI group and MPVI group were 73.3%, 69.0%, and 48.6% respectively ($p=0.000$).

Conclusions : Patients with MPVI have showed more aggressive tumor characteristics than patients with MI only . Patients with MPVI showed the worst prognosis after resection among three groups. Therefore, the original MVI should be divided into MI and MPVI according to their anatomical location.

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